ABSTRACT OF THE DISCLOSURE

A catalyst for the full oxidation of volatile organic compounds (VOC), particularly hydrocarbons, and of CO to CO_2, comprising:

a non-stoichiometric crystalline compound conventionally designated by a formula which corresponds to $A_{14}Cu_{24}O_{41}$ (I), where A is Sr or a solid solution of Sr with alkaline-earth metals, alkaline metals, lanthanides; or a non-stoichiometric crystalline compound conventionally designated by a formula which corresponds to $B_4Cu_5O_{10}$ (II), where B is Ca or a solid solution of Ca with alkaline-earth metals, alkaline metals, lanthanides; or mixtures thereof; and in that it is prepared in a form which has a large specific surface area, preferably larger than 25 m^2/g;

a method for preparing the catalysts; their use in methods for the full oxidation of VOC and of CO to CO_2; and the oxidation methods.